

**ENVIRONMENTAL ASSESSMENT
TEMPORARY WATER TRANSFER(S) WITHIN
THE SACRAMENTO RIVER AND TEHAMA-COLUSA AND CORNING CANALS
SERVICE AREAS**

INTRODUCTION

The Bureau of Reclamation (Reclamation) proposes to approve minor, temporary transfers and exchanges of Central Valley Project (CVP) water within the Sacramento Valley under this Environmental Assessment if the proposed transfers and exchanges meet criteria designed to ensure minimal impacts. Transfers which do not meet these criteria would be evaluated under separate National Environmental Policy Act documents.

The proposed program of transfers extends an ongoing program of minor transfers which had previously been approved under Environmental Assessments (EAs) entitled *Temporary Water Transfer(s) within the Corning Canal and Tehama-Colusa Canal Service Areas* and *Temporary Water Transfer(s) within the Sacramento River Service Areas* which were prepared annually. The proposed program differs from the past, problem-free, programs only in the duration of the program, a step being taken to reduce administrative costs. Transfers qualifying for approval under this proposed program and this EA would be in full compliance with Section 3405(a) of Public Law 102-575, Title 34, the Central Valley Project Improvement Act.

PURPOSE AND NEED

There is an underlying need for individual, single water year, water transfers in the Sacramento Valley, which have historically occurred to:

- C Meet irrigation requirements, and/or
 - C Meet incidental municipal and industrial (M&I) use, and/or
- www.mp.usbr.gov.

Meet the full habitat development needs (level 4) for the Sacramento, Delevan, and Colusa National Wildlife Refuges pursuant to Section 3406(d)(2) of the Central Valley Project Improvement Act, P.L.102-575 (CVPIA)

The program will expedite temporary, typically small, environmentally benign transfers and exchanges of CVP water between CVP contractors or the Department of the Interior. It will thereby free staff resources for reviews of more complex or longer-term transfer and exchange actions warranting case by case review. These will require, and receive, separate analysis. The duration of the proposed program is for the five consecutive Water Years beginning March 1, 2000 through February 28, 2005, but the individual transfers approved under this program would be limited to single water years.

PROPOSED ACTION AND ALTERNATIVES

Proposed Action:

The proposed action is approval, without further NEPA review, of single year, historic, and routine transfers within the Sacramento Valley that meet specified criteria designed to ensure minimal environmental impact and totaling no more than 75,000 acre-feet of CVP water per year during the period March 1, 2000 through February 28, 2005.

These transfers will be monitored and an annual summary of each year's cumulative transfer activity prepared.

The transfer(s) approved under this program would occur (1) between existing contractors on the Sacramento River, (2) between existing contractors on the TC and the Coming Canals, (3) from contractors on the Sacramento River and the TC Canal to contractors on the Colusa Basin Drain (Drain), (4) from contractors on the Sacramento River and TC and Coming Canals to the Sacramento, Delevan, and Colusa National Wildlife Refuges (Refuges), and (5) between existing contractors on the Sacramento River and existing contractors on the TC and Coming Canals. (See Appendix A for a list of the contractors).

This program is intended for those routine transfers of project water that do not result in an overall increase in consumptive use and will not change CVP operations. The project water transferred pursuant to this program will be used to meet the crop irrigation and non-crop consumptive use requirements; and will be used to meet the habitat requirements on the Refuges as defined in the *1989 Report on Refuge Water Supply Investigations* and required pursuant to subsection 3406(d)(2) of the CVPIA.

The transfers will not change CVP operations since releases from CVP reservoirs into the Sacramento River are, with rare exceptions, sized to meet water temperature requirements in the Sacramento River and Delta water quality standards.

All water transferred would be water diverted from the Sacramento River. The transfers may involve unscreened diversions, improperly screened diversions, or properly screened diversions.

The criteria for approval of transfers under this action would prevent adverse effects on either listed or unlisted threatened and endangered fish or wildlife or their critical habitats.

Water transfers or exchanges covered under this BA, must:

1. Occur within a single water year.
2. Qualify as historic and routine transfers.

3. Use existing facilities and operations.
4. Maintain existing land uses.
5. Provide water for lands irrigated within the last three years, groundwater recharge, maintenance of fish and wildlife resources, incidental domestic use, or municipal and industrial use.
6. Occur between either the Sacramento Valley CVP contractors listed in Appendix A or between those contractors and the Sacramento, Delevan, and Colusa National Wildlife Refuges.
7. Comply with all applicable Federal, state, local, or Tribal laws or requirements imposed for the protection of the environment and Indian Trust Assets.
8. Occur between willing buyers and willing sellers.

Transfer requests not meeting these criteria, or otherwise not clearly avoiding affects on federally listed species, would require separate environmental documents prior to approval.

Alternative One: Limit historic transfers to screened facilities

This alternative is the same as the proposed action except transfers would only be allowed if the transferred water were to be diverted through a properly screened facility or to provide water to localities served by properly screened diversions. (This would allow diversions of water to the three wildlife refuges.) Ideally, all diversions from the Sacramento River would be through screened diversion facilities that met National Marine Fisheries Service criteria, and approximately 80% of the water, by volume, that is diverted from the Sacramento River is diverted through diversions that are properly screened or which have such screens under construction. However, Reclamation is aware that many points of diversion are unscreened or improperly screened. These small, farm points of diversion typically account for an average maximum diversion of 71 cfs, or 0.7% of the Sacramento River's flow during the April through October irrigation season of normal and above normal water years. Flows during this period in such years are typically 10,000 - 12,000 cfs. These same diversions, if diverting at that rate during dry and critically dry water years when flows in the river can be as low as 4,000 cfs would divert up to 1.8% of the flow. Therefore, the average maximum flow through an unscreened diversion on the Sacramento River would affect only 0.7% of the total flow during the irrigation season in normal and above normal water years and 1.8% in dry and critically dry water years. However, the quantities transferred under this program tend to be small and diversions of this magnitude under this program are brief. This alternative was eliminated from further consideration because of the disparity between the cost to the diverter from crop loss and the benefit to the fishery from a temporary reduction in the risk of entrainment of 0.7%-1.8%.

Alternative Two: Review each individual historic transfer

This alternative is the same as the proposed action except each individual transfer would be subject to review and approval pursuant to the criteria listed for the proposed action. The proposed action eliminates the repetitive NEPA action required under this alternative. This alternative was eliminated from further consideration because reviewing each individual transfer would not be an economical use of government resources and divert Reclamation staff from those transfers requiring more rigorous analysis.

No Action Alternative:

Under the No Action Alternative, Reclamation would continue to prepare environmental documents similar to this one for CVP water transfers in the Tehama-Colusa and Corning Canal Service Areas, the Sacramento River Service Area, and to the Refuges. This alternative would be the same as the proposed action except, environmental documents would be prepared on an annual basis, redirecting Reclamation staff from those water transfers requiring more in depth review.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Physical Resources

No impacts are associated with these transfers because the volume of water released through Keswick is generally determined by either fishery or water quality requirements. Irrigation demands rarely determine the volume of Keswick releases under current environmental directives, and the effects of the small transfers allowed under this program would be a minor portion of the total released at those times. Therefore, transfers approved under this program are not expected to affect either the timing or volume of releases from Keswick. These transfers would not increase the total volume of water diverted beyond what is allowed contractually and would not necessarily increase it beyond what would occur absent approval of the transfer.

Nor would water delivery approved under this EA affect physical resources at the point of diversion, the conveyance facilities, or the place of use. Transfers would be restricted to those which use existing facilities and essentially existing operations. This action would not change existing diversion points or result in new facilities or changes in land use. Water would be conveyed in the Sacramento River and existing CVP facilities, including the Corning and/or Tehama-Colusa (TC) Canals. It would only cause minor changes in the timing, location, and amount of water diverted, relative to what would happen absent this program. All diversions would be through existing, approved points of diversion. The volume at any point of diversion would remain within contractual limits.

Specifically, the transfer(s) would not adversely affect unique geological features such as wetlands, wild or scenic rivers, refuges, flood plains, rivers placed on the nationwide river inventory, or prime or unique farmlands because transfers approved under this BA would be restricted to those which use existing facilities and essentially existing operations.

No measurable differences in impacts to the natural environment would result from the adoption of alternatives to the proposed action, but adverse effects on farm operations could result under the alternatives, particularly the No Action Alternative. Under the No Action Alternative the absence of water transfers would require users to either replace the CVP water that would otherwise be transferred, make do with less water, or lose crops.

Biological Resources

No negative impacts to upland plants or wildlife are anticipated because no new lands would be irrigated as a result of the proposed transfer(s) and the total area irrigated would remain essentially the same on a regional basis, and operations would be within the historic limits covered by the consultations for the Programmatic Environmental Impact Statement for the Central Valley Project Improvement Act. Moreover, the criteria for inclusion of a transfer under this program would exclude land use changes for new facilities that might affect listed species and would allow deliveries only to lands used too recently to provide habitats for any but the most adaptable and rapidly dispersing ("weedy") species.

Beneficial effects may occur, but probably would be limited to the maintenance of the status quo. The effect would be, for example, for a rice field or canal to be kept adequately watered through the season rather than for additional acreage to be planted.

Similarly, no negative effects are expected to aquatic and riparian species or their habitats, even though many transfers may involve transfers through unscreened or improperly screened diversions. Such diversions, while accounting for most of the points of diversion, tend to be small and in the aggregate account for a minority share of the volume of water diverted from the Sacramento River. Moreover, the diversions under this program would be within the historic limits covered by the Biological Opinion for the winter-run Chinook salmon, the current consultations for steelhead trout, and consultations for the Programmatic Environmental Impact Statement for the Central Valley Project Improvement Act.

Moreover, it is reasonable to expect the transfers often would occur during either the peak of the summer irrigation period or late in the growing season when substantial releases are made from Keswick for temperature control of the upper Sacramento River. Therefore, transfers are most probable when Keswick releases are relatively high.

Because most of these diversions would occur in the late summer and early fall only late-fall run and winter run juveniles would be at risk of entrainment, among the salmonids. While late-migrating juveniles of fall-run Chinook salmon and steelhead trout do occur in the river during the summer months, they occur before the diversions covered by this EA are common. Thus, no adverse effects on these two species are anticipated. Effects on the winter run are covered by the Biological Opinion. The very similar effects on the, as yet, unlisted late-fall run are covered by the consultations for the Programmatic Environmental Impact Statement for the Central Valley Project Improvement Act.

Because the water for the TC and Corning Canals is obtained from the Sacramento River through properly screened diversions, and because both canals are essentially devoid of wildlife, transfers to users of these canals involving diversions from the Sacramento River would not affect any aquatic species listed or proposed to be listed as endangered or threatened.

Thus, no difference in effects on threatened or endangered species are expected between the proposed action and its action alternatives. The environmental difference between the proposed action and Alternative One would be simply one of scale with fewer diversions, and presumably less water, being diverted under Alternative One than under the Proposed Action, the environmental effects of which, as explained above, would themselves not be measurable. The difference between the Proposed Action and Alternative Two would be purely administrative. No environmental differences would occur. Individual historic transfers would be reviewed subject to the criteria for approval of CVP transfers under the proposed action. The only effect would be to greatly multiply the number of documents required and the costs incurred. Similarly, there would be no environmental difference between the Proposed Action and the No Action Alternative. The No Action alternative would simply require five EAs instead of one.

Cultural Resources

No negative impacts to cultural resources are anticipated under any of the alternatives because transfers approved under this EA would be restricted to those which use existing facilities and essentially existing operations.

No new or additional land would be placed under irrigation, nor would construction of new facilities occur. No properties listed or eligible to be listed in the National Register of Historical Places would be affected. No Federal, State, Local or Tribal law or requirements imposed for protection of the environment would be violated.

Indian Trust Assets

The transfer(s) would not affect Indian Trust Assets under any of the alternatives.

Other Socio-economic Resources

The transfer(s) would not affect the quality of human environment or public health or safety or involve unresolved conflicts concerning alternative uses of available resources under any of the alternatives because they essentially maintain present conditions. Given the criteria for approval of a proposal under this EA, the proposed action would not increase the amount of water available or the amount of irrigated land within the Sacramento Valley. It would merely facilitate efficient use of the resources already in use and help prevent crop losses. Minor shifts in the location of water use would occur, but they would be too small to noticeably affect regional economics. The benefits would primarily be felt by individual users, not by whole communities.

No action could adversely affect individual water users because they may not be able to meet water deficiencies which may be met under the proposed action.

The transfer(s) would be consistent with the Department of Interior environmental justice guidelines, and would not preferentially favor nor discriminate against any socioeconomic groups under any of the alternatives.

Project Operations

Reclamation has determined that there would be no identifiable impacts to the CVP operations as a result of the transfer(s). Therefore, no impacts associated with water delivery or other impacts to the Central Valley Project (CVP) operations are anticipated as a result of the proposed transfer(s) under any of the alternatives.

MITIGATION MEASURES

Reclamation would work with National Marine Fisheries Service (NMFS) to develop informal guidelines to address impacts if transfers through unscreened or inadequately screened diversions result in unanticipated effects.

CONSULTATION AND COORDINATION

No consultation under the Endangered Species Act with the FWS or NMFS was required for this proposed transfer program because Reclamation determined this program would not affect any listed species. This determination was made because all transfers would be consistent with and within the requirements of all biological opinions addressing aquatic species that are either the FWS's or NMFS's responsibility. For terrestrial species, Reclamation has also determined that the program is not likely to adversely affect any listed species because the criteria for approval under this EA are designed to avoid adverse affects. Reclamation has, nonetheless, requested concurrence with its determination of no effect and not likely to adversely affect listed species from both NMFS and FWS.

Reclamation circulated the draft EA for this proposed action to all Sacramento River and TC and Corning Canal contractors and other parties who had previously expressed interest in water transfer activity.

Public comments and responses to comments have been addressed and are posted on the Internet at the site below.

Transfers authorized under this program would be posted on the internet at a site linked to Reclamation's web site at www.mp.usbr.gov to allow NMFS and FWS to verify the continuing appropriateness of Reclamation's actions with respect to the status of federally listed species.

Appendix

List of Contractors

4-M WD
A & F Boeger Corp.
Anderson-Cottonwood ID
H & A Andreotti Farms
Jack Baber, Et Al
Bartizon Farms, Inc.
Philip Burroughs
Fred Cannell
Jane F. Carter
Colusa County WD
Colusa Drain MWC
Colusa Properties, Inc.
Conaway Conservancy Group
Corning WD
Cortina WD
Davis Ranches
Davis WD
Deseret Farms of CA
Elizabeth Dommer
Dunnigan WD
Fargo & Haggerty
David G. Forry
Antonio Furlan
Glenn-Colusa ID
Glenn Valley WD
Glide WD
Joseph T. Griffin
John R. Henle
Hershey Land Co.
Glenn Hiatt, Jr.
Mariette B. Hollins
Holthouse WD
Howald Farms, Inc.
Kanawha WD
Ben King
Kirkwood WD

Layton Knaggs
La Grande WD
William P. Lockett
Lomo Cold Storage
M & T, Inc.
Maxwell ID
MCM Properties, Inc.
Meridian Farms Water Co.
Myers-Marsh MWC
Natomas Central M.W.C.
Janice O'Brien
Oji Brothers
Mas Oji
Orland-Artois WD
Pelger Mutual Water Co.
Pleasant Grove-Verona MWC
Princeton-Codora-Glenn ID
Proberta WD
Provident ID
Reclamation District 108
Reclamation District 1004
John D. Reynen, et al
River Garden Farms Co.
Roberts Ditch Irrig. Co.
Sartain Mutual Water Co.
Javed & Amna Siddiqui
Spence Farms
Sutter Mutual Water Company
Swinford Tract Irrig. Co.
James Tarke
Thomes Creek WD
Tisdale Irrigation Company
Wallace Construction, Inc.
Joyce M. Wells
Westside WD
Wilson Ranch Partners